JPRS 77318 4 February 1981

## Worldwide Report

**EPIDEMIOLOGY** 

No. 216



FBIS FOREIGN BROADCAST INFORMATION SERVICE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports
Announcements issued semi-monthly by the National Technical
Information Service, and are listed in the Honthly Catalog of
U.S. Government Publications issued by the Superintendent of
Documents, U.S. Government Printing Office, Washington, D.C.
20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

# WORLDWIDE REPORT EPIDEMIOLOGY

No. 216

## CONTENTS

## HUMAN DISEASES

BANGLADESH	
Briefs Cholera Deaths	1
CZECHOSLOVAKIA	
Briefs Rabies Reported	2
CHANA	
TB Incidence, People's Attitudes, Statistics Reviewed (Rose Hensah-Kutin; DAILY GRAPHIC, 15 Dec 80)	4
Cholera Outbreak Affects Eastern Region Areas (DAILY GRAPHIC, 16, 18, 20 Dec 80)	4
Deaths Reported MP Appeal Electrification Urged, Editorial Outbreak Under Control, by Isaac Asante	
Spoiled Canned Goods Will Be Withdrawn (Ayikwei Armah; DAILY GRAPHIC, 8 Jan 81)	
HONDURAS	
Briefs Hore Tuberculosis Cases	7
INDIA	
Sixth Plan Provides for Fight Against Leprosy (THE HINDU, 25 Dec 80)	
- 2 - (III - WW - 13	341

#### INDONESIA

	Briefs		
		Typhus, Malaria in South Kalimantan Whooping Cough in Banjarnegara Measles in Central Java Gastroenteritis in East Kalimantan	10 10 11 11
IVORY	COAST		
	Report	age on Joint Session in Cempaign To Eradicate Onchocerciasis (FRATERNITE-MATIN, 22-23, 27, 28 Nov 80)	12
KAMPU	CHEA		
	Openin	g of Antituberculosis Course for Provincial Workers (Phnom Penh Domestic Service; 22 Jan 81)	20
NEW 21	FALAND		
	Immuni	ring All Children Against Rubella Ruled Out (THE PRESS, 23 Dec 80)	21
NICAR	AGUA		
	Briefs	1980 Tuberculosis Cases	22
PAKIS1	TAN		
	Improv	ing Medical Care System Urged (Waseem Malik; THE PAKISTAN TIMES, 21 Dec 80)	23
	Briefs	Virus-Spreading Mosquitoes Attack Lahore Localities	25
SOUTH	AFRICA		
	Many Re	ecover From Cholera; Map Shows Area Affected (Various sources, various dates)	26
		Fifteen Still Hospitalized Location of Cases	
	Briefs	Typhoid Scare in Durban Cholera Case in OFS	28 28
SRI LA	INKA		
	Briefs	Cholera Areas	29

## SWAZILAND

Cholera Shot Instructions Reported (Pat Nxumalo; THE TIMES OF SWAZILAND, 13 Jan 81)	3
Reportage on Cholera Alert, Control Measures, Impact on Commerce (THE TIMES OF SWAZILAND, various dates)	3
Vendors Require Permits Reaction to First Fatality Fruit, Vegetable Imports Stopped Vegetable Prices Rise More Cases Reported, Supplies Offered	
TANZANIA	
Briefs Cholera Contained in Lushoto	3
ANIMAL DISEASES	
BOTSWANA	
Botswana Exports Vaccine for Foot-and-Mouth to Neighbors (Johannes Pilane; DAILY NEWS, 22 Dec 80)	36
CZECHOSLOVAKIA	
Cysticercosis in Cattle Called Economic Problem in CSSR (Jan Prokopic, Jiri Sterba; NAS CHOV, Sep 80)	31
Status of Campaign Against Zoonoses Examined (Lubomir Olach; ROLNICKE MOVINY, 24 Nov 80)	4
NEW ZEALAND	
Heavy Sheepmeat Losses From Sarcocystis Reported (THE NEW ZEALAND HERALD, 6 Jan 81)	45
PLANT DISEASES AND INSECT PESTS	
BOTSWANA	
EIB Loan for Vaccine Plant Reported (DAILY NEWS, 31 Dec 80)	44
EL SALVADOR	
Briefs Coffee Rust	47

## **GUATIMALA**

	Briefs Coffee Rust	48
HOW	ZEALAND	
	Insect Pest Interceptions at Ports, Airports Increasing (THE NEW ZEALAND HERALD, 10 Jan 81)	49
	Government Campaign Warns Public of Fruit Fly Outbreak Risk (THE PRESS, 22 Dec 80)	50
	Yellow-striped Rust Spreading Among Wheat Crops (Various sources, various dates)	51
	Found in Gore Area Wind Carrying Spores	

#### BRIEFS

CHOLERA DEATHS--Dacca, Jan 8--Thirteen people died of cholera and about 150 contracted the disease in recent weeks in different villages of Bhammanbaria subdivision, 60 miles (100 Kms) from here, according to a press report.--Reuter [Text] [Karachi BUSINESS RECORDER in English 9 Jan 81 - 2]

#### BRIEFS

RABIES REPORTED -- In the past few days nine persons were bitten by rabid animals, mostly foxes and feral cats, in the district of Ceske Budejovice, CSR. Forest rangers are trying to eliminate rabid animal concentrations in eight areas of the district. [Text] [Prague ZEMEDELSKE NOVINY in Czech 13 Jan 81 p 4]

TB INCIDENCE, PEOPLE'S ATTITUDES, STATISTICS REVIEWED

Accra DAILY GRAPHIC in English 15 Dec 80 p 3

[Article by Rose Mensah-Kutin]

[Excerpts] People who suffer from tuberculosis (TB), are not outcasts. For like any infectious disease, TB is preventable and curable.

And as the Ghana Society for the Prevention of Tuberculosis (GSPT), celebrated its 25th anniversary from the 23 to 30 November, 1980 this message run through films, symposia, demonstrations and discussions. "We wish to tell the public that TB patients should be helped not shunned;" says Mrs Fredricka Sannerman, acting National Organising Secretary of the GSPT.

In Ghana, surveys have indicated that approximately 100,000 people, that is one per cent of the population are suffering from TB, while about 7,000-8,000 new cases are recorded each year. It also ranks ninth amongst diseases commonly diagnosed in patients attending government hospitals.

The clinic is making arrangements to employ him on their premises.

Workers in certain industries are also liable to develop TB. Such industries are the sandstone and granite industries, sandblasting and metal grinding, manufacture of silicon bricks and of abrasive soap powders, potteries and slate works, iron ore and coal mining and the asbestos industry. The Workmen's Compensation Act (1963) stipulates that workers should be given all the necessary protection from contracting industrial disease.

In view of the fact that most TB cases in Ghana occur at industrial areas, it seems the provisions under the Act are not fully complied with.

Textiles and shoe workers are other groups with a high incidence of TB.

"Perhaps, the important factor is the cramped and poor environment in which work is carried out in these places", conjectures Dr. Samarasinghe.

Since TB is often looked upon as a 'taboo' most people who contract it feel ashamed and refuse to report to hospital. What The Chana Society for the Prevention of Tuberculosis (GSPT), in conjunction with the Chest Clinic at Korle Bu are doing is to organise preventive and curative measures against the disease.

"Our policy is to protect those who have not been infected with tubercle bacilli by BCG Vaccination and to treat adequately those who have been infected in different health care institutions", says Dr. Chowdhury of the Chest Clinic.

#### CHOLERA OUTBREAK AFFECTS EASTERN REGION AREAS

#### Deaths Reported

Accra DAILY GRAPHIC in English 16 Dec 80 p 1

[Excerpt] The death toll in the cholera outbreak at Asiakwa in the Akyem Abuakwa area in the Eastern Region has risen from four to nine within eleven days.

According to a special two-man delegation from Asiakwa, the situation is becoming very alarming with the admission of several victims to the Tafo and Kibi Hospitals.

The delegation indicated that the citizens of the area have expressed their willingness to assist the Ministry to rid the area of the disease.

Meanwhile, reports say an outbreak of cholera has hit Agona-Nyakrom in the Central Region.

#### MP Appeal

Accra DAILY GRAPHIC in English 18 Dec 80 p 8

[Excerpt] Five Members of Parliament from the Akim area have called on the government to rush an innoculation team to areas in the Eastern Region affected by cholera.

The MPs noted that the Birim River which is the source of water in the area, is not far from Asiakwa, the center of the present epidemic and warned that if the epidemic was not controlled, it would have disastrous consequences throughout the Birim basin.

Medical authorities have advised cholera patients to use antibiotics to fight cholera because the cholera vaccinne has been found to be no more effective in controlling the disease.

#### Electrification Urged

Accra DAILY GRAPHIC in English 18 Dec 80 p 2

[Editorial]

(Text)

- CHOLERA is a dreadful disease. Not only does it hill, and fast too, but also, it causes great pain to those when it afficia, before they give up the gheat. Thus, the relatives who survive the dead are also made to experience great distress.
- The Eastern Region medical authorities deserve our warm congretulations on the able manner in which they have responded to the cries of the people of Asiatres and have brought the cholers pullbreak there under control.
- It has now been established that the pollutten of the drinking water of the form poses a serious threat to the health of the inhabitants. The inadequacies of the water supply system sometimes arise from the occasional shortage of ass of to occasional shortage of

- We doubt whether a gase-oil operated pump would be necessary if the form was provided with electricity. Yet, although much smaller rillages which are only marginally nearer the power lines have been supplied with electricity, Asiatus remains in darkness.
- if the chalere outbreak opens the eyes of the regional administration to the urpant need to provide electricity for the lown (which will, in its turn, contribute to the provision of good drinking water) than these who have died would not have died in main.
- Otherwise, the railant work done by the medical learn, which we have already praised, will surely come to nought with the passage of time. If her been said that prevention is better than cure. We have had the cure. Now is the time

lacking proventive measures

Outbreak Under Control

Accra DAILY GRAPHIC in English 20 Dec 80 p 1

[Article by Isaac Asante]

[Text] Dr J. Ayikumah Adamafio, Eastern Regional Medical Officer, has assured the people in the region that the outbreak of cholera at Asiakwa near Kyebi was under full control and that there was no cause for alarm.

He said 30 out of 33 patients who were admitted to the Kyebi Government Hospital had already been discharged while the remaining three would also be discharged shortly.

Speaking to me in an interview, the Regional Medical Officer advised inhabitants of the area to keep their surroundings clean and also cultivate personal health habits within their environments.

## SPOILED CANNED GOODS WILL BE WITHDRAWN

Accra DAILY GRAPHIC in English 8 Jan 81 p 8

[Article by Ayikwei Armah]

[Text]

THE Director of the Ghans Standards Board, Dr I. Twum-Danse, has declared that the Board will take the appropriate action to withdraw all the bad tinned feeds from the markets if inheratory tests currently being carried out on come of them are found to be smallble.

The director also gave the assurance that report on the laboratory tast on some of the goods purchaned from various marlate in Accre will be available by tomorrow

Dr Twom-Danso was commenting on a news story headed "Sardine, Markey Ratter"

The story stated that most of the timed foods especially sardines, mackerel and corned beef openly on sale at the Mathroughout the country were unfit for human connumerica.

The director pointed out that the board was taking a serious view of the metter in view of the fact that is concerned the health of

He would that there must of these goods were not imported through the appropriate and recognized apprecian purposatible for expertation of goods, it was very difficult to tenthem before their release for sub-

The director expression that ment of the production that ment of the country through the "back door" emphasizing the majority of them might have been hearted for an

#### BRIEFS

MORE TUBERCULORIS CASES--A total of 1,790 tuberculosis cases were reported during 1980. This represents a 22-percent increase over 1979, when 1,463 new cases were reported. [PAO91302 Tegucigalpa Domestic Service in Spanish 1130 CHT 8 Jan 81 PA]

#### SIXTH PLAN PROVIDES FOR FIGHT AGAINST LEPROSY

Hadras THE HINDU in English 25 Dec 80 p 6

[Text] Patna, Dec 24

The Union Health Hinistry will shortly launch a crash plan to combat the eliminate leprosy and bring relief to about five-lakh known leprosy patients in the country, according to a leprologist attached to the Hinistry.

A sum of Rs. 4) crores has been earmarked in the Sixth Plan for leprosy control and 10 districts have been selected "for pilot trial with intensive drug treatment to control the disease and prevent drug resistance among the patients."

"It is like fighting a war," according to Dr B. Hukhopadhyaya, honorary Director of Rajendra Prasad Leprosy Hospital at Mairwa, which is run by a voluntary agency.

"The drive to control leprosy cannot succeed unless 50 per cent of the cases are swiftly detected and treated," he said.

It is estimated that at least three lakh cases are yet to be detected.

The traditional drugs used so far have become ineffective as patients have developed resistance to them. Fortunately, however, never and more potent drugs are being made available by the Swedish International Agency.

What is required is training of doctors and nurses and the establishment of laboratories to quicken the pace of therapy for achieving the desired result in the shortest possible time.

Barlier at the instance of the Prime Hinister, Hrs Indira Gandhi, leprosy control had been included in the national plan and the entire expenditure under this head used to be met by the Centre. [as published]

During Januara rule the programme suffered a setback following the decision that the expenditure be shared equally by both the Centre and the State. The Centre's allocations shrank, particularly as the matching grant from the State Governments was not forthcoming.

In Bihar there are least one-lakh known cases and the incidence is particularly high in tribal areas of Santhal, Parganas, Singhbhum, the coal mining district of

Dhanbad, Rohtas district in South Bihar and North Bihar districts of Chapra, Siwan and Gopalganj,

There are nine leprosy control centres in Bihar run by voluntary agencies, four of which have hospitals attached to them.

The President, Mr. N. Sanjiva Reddi, will inaugurate a seminar of leprologists at Marina in North Bibar on Jan. 12.

Besides inaugurating the seminar the President is also scheduled to lay the foundation for a new reconstructive surgery unit for leprosy patients of the hospital.

C60: 5400

#### BRT EFS

TYPHUS, MALARIA IN SOUTH KALIMANTAN-Eleven residents of Pelaihari, capital of Tanah Laut Regency, South Kalimantan, died of typhus and malaria after they returned to the local area from panning for gold in the Rematian River. The goldpanning area is located in the outskirts of Asam-Asam Muara village, Jorong Subdistrict, about 30 kilometers from Pelaiheri. Dr Ashari Thaib, chief of the Tanah Lout Health Service, said the site on the Rematian River is unhealthy. The surrounding area is covered with vegetation, gold panners' buts are filthy and sanitation in the surrounding area is poor. The gold panners whom EUPPAS met agreed that they sometimes are only one seal a day although they worked very hard. All the gold panners examined apparently suffered from malaria and typhus. H. Tidjanesh, who works with gold in Pelatheri and who is a member of the Tanah Laut regional legislature, said the gold-panning site on Kematian River was abandoned for 25 years. The Dutch had panned gold there but an accident there caused the death of many men who panned for gold. The Japanese then took it up but were also forced to stop after deaths occurred. The Kematian River was considered a "ghost" river by the people living nearby, but their fears dissipated after a long time and gold panners from other areas began coming in to work the river. Tidjansah said the deaths of the gold panners are linked to a local disease called the "wisa amas" (gold potenting). The people believe that those who find a lot of gold will be struck with the disease. [Excerpts] [Jakarta EUMPAS in Indonesian 21 Nov 80 p 51 6804

WHOOPING COUGH IN BANJARNEGARA-A whooping cough epidemic is known to have been raging through Banjarnegara Regency, Central Java, since mid-October. Dr Hariadi, chief of the Regional Directorate for the Control and Prevention of Contagious Diseases (DITDA P3M), Regional Office of the Department of Bealth, Central Jakarta, told KOMPAS on Friday afternoon (28 November) that 328 victims had been recorded. Of these, eight children died. Two were in the age group newborn to 11 months and 6 were in the 1 to 4 year age group. The whooping cough (kinghoest) epidemic is reported to be raging through Punggelan Subdistrict, even though an immunization program had been carried out there since April 1980. However it was admitted that the program's implementation was imperfect and not all those suffering from whooping cough had been able to get the diphtheria, whooping cough and tetanus (DPT) vaccination. An investigation of those suffering from whooping cough showed that the majority were in the 5 to 9 year age group (101 sufferers) and in the 1 to 4 year age group (143 sufferers). The whooping cough epidemic in Banjarnegars began in the 40th week (in the south of October 1980) with a victim in Dukuh Bengkat. Who knows how many became ill in the following week? The disease erupted later and continued to apread. [Excerpts] [Jakarta ECMCPAS in Indonesian 29 Nov 80 p 12] 6804

MEASLES IN CENTRAL JAVA--It is believed that measles epread in Gumelar Lor village, Tambak Subdistrict, Banyuman Regency, Central Java, from October to mid-Rovember. The disease attacked many children in that area, six of whom died. Actually a medical team consisting of a doctor, nurse and pharmacian carried on a Community Service Action program at the end of October, providing medicine and food as well as clothing to people in Tambak Subdistrict. Examinations done by the doctor at that time showed that many of the local people suffered from malnutrition, infections and skin and tooth diseases. According to Dr Lucas Mariatmanta, 95 percent of the Inhabitants of areas visited by a paramedical group during the Action were in poor health. Dr Lucas added that many children in Purwokerto also had measles, but thus far there were no deaths from the disease because of the availability of many doctors, hospitals and clinics capable of serving the local inhabitants.

[Excerpts] [Jakarta SINAE HARAPAN in Indonesian 19 Nov 80 p 3] 6804

GASTRODYTERITIS IN EAST RALIMANTAN--Records of the East Kalimantan Provincial General Hospital and the Samarinda capital region to date show that 14 deaths occurred among the 945 persons attacked by gastroenteritis. About 20,000 inhabitants along the Karangmumus River, which empties into the Mahakan River, are threatened. An investigation showed the river water was polluted and definitely was the source of the disease. Dr H. Sofyan Agus, director of the provincial general hospital, told the press that 13 of the 14 victims mentioned above were children and 1 was an adult. [Excerpts] [Jakarta SIHAR HAHAPAH in Indonesian 28 Nov 80 p 3] 6806

#### REPORTAGE ON JOINT SESSION IN CAMPAIGN TO ERADICATE ONCHOCERCIASIS

Abidjan FRATERNITE-MATIN in French 22-23, 27, and 28 Nov 80

[Article--passaged between signtimes originally published in boldface]

[22-23 Nov 80 p 3]

[Text] Ivory Count will host, from 24-27 Hovember, the first mession of the Joint Committee for the Compaign to Eradicate Onchocerciasis. It will be the first meeting of this committee since the beginning of the second phase of financing which covers the period 1980-1985 and carries a budget of \$107 million.

And it is the home town of the chief of state that will volcome the delegations of the seven participating countries Sunday morning. These are: Benin, Ivory Coast, Chana, Upper Volta, Hali, Niger, and Togo.

Representatives of donor countries and organizations will also be present in Yamoussoukro, namely: West Germany, Saudi Arabia, the ABD [African Development Bank], the IBRD and International Development Associations from the group of the World Bank, Belgium, Canada, the United States of America, France, Great Britain, Holland, Japan, Kuwait, Morway, OPEC, UNDP, Switzerland, and the Al Sabah Pund, as well as sponsor organizations such as the Food and Agriculture Organization of the United Nations, the United Rations Development Program, the World Bank, which put together and manage the funds of the program, and the World Bealth Organization, which is responsible for execution of the program.

Before the official opening of this first session, the delegates from the participating countries and bodies will make a visit to the banks of the N'E1 at Krokokro, where a medical team will make an epidemiological evaluation of the ravages of onchocerciasis, or river sickness, in this region in the center of the country. Before visiting the Institute for Ouchocerciasis Research and the activities of the campaign in the Bouake sector, the delegates will witness in Krokokro demonstrations of the struggle against river blindness, especially spraying insecticide from airplanes and helicopters on the N'E1 and the Kan.

#### A Threatened Zone

The Committee for the Campaign to Eradicate Onchocerciasis is a body that has been working since 1973 to cope with the damage done each year by this terrible malady called onchocerciasis or river blindness. It is a parasitic illness

propagated by a filiform worm whose scientific name is /onchocerca volvulus,/ which affects 70 to 40 million people in tropical Africa, Yemen, and certain regions of Central and South America.

Man is apparently the only vertebrate host of this parasite and the illness is transmitted by the bite of simulies (translation unknown). Among the major clinical manifestations of onchocerciasis are skin eruptions, intense itching, elephantiasis and loss of pigmentation of the skin, characteristic modules where the adult thread-worms are found, and—the most serious consequence of the disease—ocular lesions that can lead to blindness.

The medically largest and most widespread regions of endomic disease are found in tropical Africa, where the main vector bears a no less scientific name: similium damnisum. This simulie multiplies in the fast-moving rivers and streams, and it is the populations living in proximity to such currents which are most affected by the disease.

Thus the savannah some of the Volta Basin, in West Africa, is one of the prime sites for endemnic onchocerclasis in the world. It is believed that in this region, which includes parts of Benin, Ivory Coast, Chana, Upper Volta, Hali, Higer, and Togo, more than a million people are infected. And it is reckoned that at least 100,000 people are blind, which does not even include a large number suffering from serious visual problems.

#### Obstacle to Peopling

This scourge has forced the local populations living in proximity to the water-courses to abandon the fertile valleys and move to other land which is much less productive. In other words, onchocerciasis is objectively a real obstacle to peopling, and consequently to the economic development, of the fertile valleys, which remain unishabited and unproductive.

Even worse, the ill effects of the drought in the Sahel and the savannah, where the rains have failed for six consecutive years, have gravely compromised the already precarious socioeconomic equilibrium of the Volta basin region.

So one can readily understand the importance of the Joint Committee for the Campaign to Eradicate Onchocerciasis. For, as long as this disease continues to ravage the regions in question, it will constitute a serious mortgage on the future of the populations there.

During this first seeting, from 25-27 November, the committee will have to consider the activity report of the World Health Organization for 1980, as well as the report of the experts that follow the activities of the campaign independently.

The representatives of the participating countries will assess socioeconomic development in the zones covered by the program in their respective countries. The WHO will present its action plan and budget program for 1981, and the World Bank will address financing.

Two interim reports will also be presented to the committee: that of the independent commission on long-term prospects of the campaign, and that on the study of feasibility of a campaign to eradicate onchocerciasis in the region of the Sanegal River basin—these reports not to be presented in their final form until the second session of 1981.

[27 Nov 80 p 8]

[Text] The Joint Committee for the Campaign to Bradicate Onchocerciasis began its work Tuesday at 1130 in the conference hall of Yamoussoukro's Party House. President Auguste Denise on behalf of the chief of state welcomed the members of the committee as well as the representatives of the donor countries and organizations from America, Asia, Europe, the Middle Bast, and Africa. Several moments after this short opening speech, there was a 10-minute recess. Following this, President Denise was unanimously elected president of the meeting. And Douglas Hindores, the Canadian, was in turn elected vice-president.

Taking the floor again, the minister of state, Auguste Denise, thanked the committee for the confidence it had shown him. And then said: /"Our meeting in Yamoussoukro assumes a special importance. The present campaign has entered a new phase, a phase of consolidation which will be more and more characterized by growing responsibilities for the participant countries to the degree that they want to benefit from the results obtained."/

/"January 1980 aaw,"/ continued President Denise, /"the launching of the second phase of the financing of the campaign which thereby received the eloquent testimony of the support and encouragement of a vast spectrum of donor governments and agencies. Now it seems evident that if the success obtained during the first phase continues in the second, the campaign will succeed in reaching its objectives which were to suppress onchocerciasis, to relieve the physical misery of millions of human beings, and to give economic life to several thousands of kilometers of rivers as well as to a great amount of good land. By consequence, our attention is going to have to be turned, no longer toward the pure and simple activity of conchocerciasis control, but, more than in the past, toward economic development. The annual report which you have all received and which will be emplained to you presently in greater detail by the campaign director, contains several points in which we can take pride, of which I will only mention one, dealing with re-invasion.

/"It is now clear that this phenomenon which more or less disoriented all of us in the early years is now understood in all its facets and the steps that were taken by the entomologists have considerably reduced its impact, to the point that 80 percent of the some of the campaign is recording annual rates of transmission and attacks [bites] which are completely in agreement with the criteria prescribed by the scientific group."/

The director of the Joint Committee for the Campaign to Bradicate Onchocerciasis, Mr Bazin, came to the podium after the remarks of President Denise to do a rapid survey of the present situation. He gave a very upbeat review to those in attendance.

/"Let us recall that in December 1973 the seven countries--Niger, Upper Volta, Hali, Ivory Coast, Chana, Togo, and Benin--had signed at Accra a framework-agreement

which established the operational plans for the campaign. Then, in succession, were the signature in Washington of the financing accord by the donor countries, and the setting up in Geneva and Brazzaville of executive, supervisory, and scientific and technical assistance structures. Finally, starting from Ouagadougou, the recruitment of personnel, some 700 people of 18 different nationalities and also the setting up of a sizeable logistical and administrative infrastructure to cover 700,000 km-square of territory, which is a geographic area larger than the combined areas of the American states of Virginia, West Virginia, Haryland, Delaware, Pennsylvania, Ohio, New York, and New England.

#### 20 to 40 Million Diseased

/"On 31 December 1979 the first 6-year period of our operations ended. Perhaps, to present a summing-up of this first phase, it would be appropriate to mention, if only briefly, the problem, the strategy, and the objective.

/"Onchocerciasis is a disease which affects between 20 and 40 million people throughout the world, especially in tropical Africa, Yemen, the Sudan, in Central America, and in South America. The people living in the sone covered by our campaign are believed to number around 10 million. Among them, I million are afflicted by onchocerciasis, and 100,000 are blind. Among the clinical manifestations of the sickness, the most serious include:

- ==eruptions on the skin,
- -- intense itching,
- -elephantiasis,
- -- nodules in which the adult thread-worms accumulate,
- ==ocular lesions,
- -- and finally blindness."/

"Like any parasitic illness, onchocerciasis requires the conjunction of three elements: man, parasite, and vector. In absense of any medications which at present could be employed without danger in a mass campaign against the parasite, our strategy consists in controlling the vector, by aerial spraying of insecticides on the flowing water where the larval beds are found, so as to interrupt the transmission of the disease, the objective being to remove onchocerciasis as a major public health problem and an obstacle to economic development. This objective, today, has practically been attained.

"The vector is under control in 80 percent of the land area of the program. The remaining 20 percent constitutes what we call pockets of re-invasion, the size of which decreases consistently as we expand control. The incidence of the disease of onchocerciasis has decreased by 10 to 20 percent in all the villages. Ocular parasitism is decreasing.

"Ocular lesions are stabilized. In the 0-10 age group the disease has become a rarity, and the percentage of blindness due to onchocerciasis is today near sero. Translated into economic terms, the excellent results obtained by the campaign against the vector basically mean the liberation of 276,000 square-kilometers of new land. This sudden availability of good additional land will have three effects:

-- relieve the demographic pressure over a vast zone.

-- attenuate the devastating effect of erosion on this same zone.

--increase agricultural productivity with the help of the sizeable investments which the seven governments have begun to make to exploit these new lands."

It must be said that in waging the campaign against onchocorciasis in the Voltabasin, we have never lacked for financial resources. Over the two phases, 1974-1979 and 1980-1985, the amount of resources necessary to the conduct of our operations is estimated at around 35 billion CFA francs. As of this date, we can consider as settled the financing of the entirety of this sum. It is subscribed, as unfettered gifts, by a group of countries and international organizations including: West Germany, the African Development Bank, Belgium, Canada, the United States, France, Great Britain, Holland, Japan, Kuwait, Horway, OPEC, the UNDP, Switzerland, the Al Sabah Pund, Saudi Arabia, and finally the World Bank itself which had handled the mobilization of funds and manages them on behalf of the World Health Organization.

[28 Nov 80 pp 1, 10]

[Text] The work of the first meeting of the Joint Committee for the Campaign to Bradicate Onchocerciasis ended yesterday morning in Yamoussoukro. This took place under the effective chairmanship of the minister of state, Mr Auguste Denise. Before the closing speech, a new director to head the work of the campaign was elected, Dr E. Samba, consultant, director-designate of the campaign to eradicate onchocerciasis, who will replace Mr Harc Louis Bazin, who has been called to other duties with another international organization. Several speakers, including President Denise, took the floor to pay well-deserved homage to the outgoing director, who imbued the program with the seriousness and scope which it has today. "If the program is a success," President Denise will say, "we owe it to his enlightened leadership and to his administrative skill. All of us have the highest regard for Mr Bazin, as do all participants in the campaign. I want to personally wish him a long and fruitful career at the World Bank. At the same time, I would like to welcome Dr Samba, who will assume his duties in mid-December, and I am sure that our relations with him will be just as close and cordial."

The results of the deliberations at Yamoussoukro will be communicated to the interested countries and organizations a month from now, as will the date and place of the next meeting.

[Article by special correspondent Ladji Sidibe]

The work of the first meeting of the Joint Campaign for the Eradication of Onchocerciasis, which began last Tuesday, ended yesterday morning in Yamoussoukro. The date and place of the next meeting will be determined between now and the end of next January. During this meeting a new director of field operations was elected, Dr Samba of Gambia. He is replacing the outgoing director, Mr Harc Louis Bazin of Haiti.

Before the closing address from the minister of state, Mr Auguste Denise, who presided over the deliberations of this meeting, several participants spoke up to pay deserved homage to the out-going director who for 4 years has with much success led the campaign against onchocerciasis in the seven participant countries. Thus a special resolution of congratulations was approved for the great pioneer of this great operation, which required sustained effort end [self-] abnegation to put into action.

The participants also paid homage to the chief of state, President Pelix Houphouet-Boigny, who did everything in his power to ensure that the meeting in Yamoussoukro, his hometown, would be a success, which it was. As for the deliberations themselves, they were devoted to the study of seven main points. These are: the activity report of the World Health Organization for 1980, the report of the consultative commission of experts, socioeconomic development in the zones covered by the campaign in the seven countries, the action plan and budget program for the year 1981, the financing of the program—estimated at 35 billion CFA francs—, the interim report of the independent commission on long-term prospects for the campaign, and finally the interim report on the study of the feasibility of a campaign to eradicate onchocerciasis in the region of the Senegal River basin.

The exchanges of views on each of these points among the delegates from the seven countries concerned—namely Benin, Ivory Coast, Upper Volta, Niger, Chana, Mali, and Togo—on the one hand, and the experts and contributing parties on the other, composed of the following countries and organizations: Saudi Arabia, African Development Bank, Belgium, Canada, United States of America, France, Japan, Kuwait, Netherlands, West Germany, United Kingdom, PAO, World Bank, UNDP, WHO, will be the subject of a report which will be published within a month by the secretariat of the joint committee for the campaign to eradicate onchocerciasis.

The various points on the agenda items aroused quite lively discussion and the exchanges of views were very encouraging for the future of the joint committee for the campaign to eradicate onchocerciasis. Which caused the minister of state, Auguste Denise, who presided over the deliberations, in his closing address, to say: "I was very favorably impressed by the questions which were posed, especially as they related to scientific and technical aspects, which are sometimes difficult to explain clearly. This is a source of satisfaction for all those whose task it was to draw up the texts which were submitted here for your examination, and which were discussed."

The Discussion of Success

"This meeting has been constantly embued with the spirit of collaboration which reigns between WHO, that is the organization charged with project execution, the other institutions collaborating in it, the donor countries, and the participant countries.

"It has become apparent over the years that the participants have little by little become a veritable OCP [expansion unknown] family, closely bound, whose members have as a common objective to improve the well-being of millions of people several hundred [sic] of whom are unfortunately stricken by this dread disease, onchocerciasis, which, when it did not kill, led to blindness. But now there is hope.

Thanks to unceasing efforts, the OCP can pride itself justly on having reduced the incidence of onchocerciasis in 80 percent of the zone covered by the campaign.

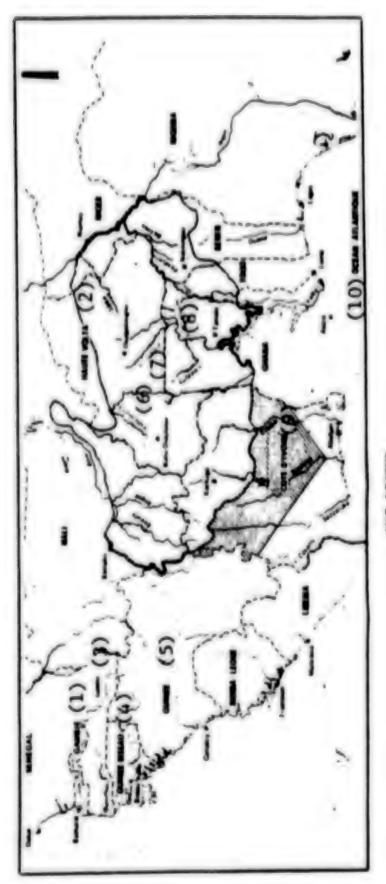
"Naturally, we cannot be fully satisfied. The reports presented by the delegates from our fraternal countries of Africa and the observations they made show clearly that still more needs to be done. Some are asking that the campaign play a larger role in the study of other maladies: some believe the campaign should look into chemo-therapy research. Others are concerned with the problem of re-invasion and of resistance. Others still demand and extension of the zone of the campaign. These are all legitimate aspirations, and I see in them the ransom [sic] of the confidence which our organization and its methods have inspired.

"The new consultative organ, the consultative committee of experts, headed by Dr G. Camus, has confirmed its intention of fulilling its mandate, which is to aid the campaign and to keep the joint committee constantly informed, and we encourage it to pursue this extremely important task.

"In my first speech, I stated that it was the responsibility of the participating countries themselves to benefit from the efforts deployed in the struggle to eradicate onchocerciasis and to proceed to the utilization of the valleys freed from this disease. The reports witness a positive response in this regard, but I think the suggestions aimed at getting more precise information on the sanitary structures that would be needed to utilize and colonize the [new] lands are quite to the point.

"This aspect of the question should be examined, in fact, in the general structure of the public health services of our countries, while we unite our efforts to establish health for all between now and the year 2000.

"The president of the independent commission shares [with us] some ideas which have been expressed on the subject of the long-term prospects of the campaign. On the other hand, we have taken cognizance of the study of the feasibility of a campaign to eradicate onchocerciasis in the basins of the Senegal River, as well as of information on the progress of studies on [possible] extensions into southern Ghana, Togo, and Benin. Following the final reports which will be presented at the next meeting of the joint campaign committee, decisions of the first magnitude will have to be taken."



HAP LEGEND

- er Volt. 7.
  - Joper Volt.

-----

7. Red Volts 8. White Volts

#### OPENING OF ANTITUBERCULOSIS COURSE FOR PROVINCIAL WORKERS

#### BK240728 Phnom Penh Domestic Service in Cambodian 1230 CMT 22 Jan 81

[Text] In order to further develop and expand the public health sector and promote the antituberculosis division, on 21 January a ceremony was held at the antituberculosis institute to open the first course on antituberculosis technique and expertise for 28 trainees from various municipal and provincial health networks under the sponeorship of Comrade Bunchan Bunson, chairman of the antituberculosis institute committee.

Presiding over the ceremony were Comrade Nu Beng, minister of public health; female Comrade Chey Kanh Mha, vice minister of public health; and Comrade Yut Kim Teng, vice minister of public health. Several cadres and personnel of various offices and ministries also attended.

After a speech by Comrade Bunchan Bunsom, who is also head of the antituberculosis hospital, on the significance of the course to train municipal and provincial health cadres and personnel in antituberculosis technique and expertise. Comrade Health Hinister Hu Beng took the floor to advise and exhort all trainers to heighten their revolutionary vigilance and to strengthen their stand by studying hard to increase their professional capacity both in theory and in practice in order to use the knowledge acquired during the course to serve the people and revolution effectively and accooling to the policy of the KNUFNS and KPRC.

In conclusion, a representative of the trainees pledged that in order to show gratitude to the KNUFNS, "We will spare no efforts to study hard and inbue ourselves with this knowledge in order to become able to treat the patients and prevent the people from contracting this disease by resolutely carrying out the wish of the KPRC." This ceremony ended with success in a very joyous and warm atmosphere.

## INHUNIZING ALL CHILDREN AGAINST RUBELLA RULED GUT

Christchurch THE PRESS in English 23 Dec 80 p 9

fex 7

There would be no point in vacciousing all valued pupils against ruberla according in the Health Department. The average (also down and it would probably fail again, said for Careptell Bags the devector of health promorous for the drougsteem, in a rappy to a call by the Federation, for page (bilden and to open erbools next own until all counts

De Single used that from 1979 to 1978 the deputy cannot's policy lead been to concretate brief and girls a the age of five The idea to occurate both seem had been to reduce the instance of rubella in the measurements and to become the chaoses of the fixees being contacted

But the numbers of children which had been morenited had blen low and so the company had no othered its am There had also been criticism of vaccinating been with corre not at great risk from the dis-

Because of this the department had changed the pulley to one of unsupplicities of at the age of 11 to protect them from the danger of pring both to a disasted table. At the came time the department had begun campaigning for all unsues of child-hearing age to be in-

The endence was that some been to be any more effective than it had been previously.

The long-term solution to

mining covered by the immus-break mining of girls aged 11. This copyred pergramme was about 60. Me per rent sub-payred to 100 per cont sub-payred covered the short-over problem of immuniting winness bearing thereby to become pragmant mining.

The president of the Paderation for Deaf Children, Mr John Rose, said that the department's range attitude was responsible for the present robetts continued.

The federation did not but that the framework is but more of the framework was the Government's afternot budy in such maluary. The communicate was assistant that the department's protest incummation policy and publicity (compating upstatements but if the department had been during its just

corred.

Mr Rose said that the department extensive tier 20 ser com of women of chief bearing age had not been commonised agency rubella its predicted that there could be another 100 handcapped children from next

"The department has tnown for two years that this was on its way," he

The publicity was aimed at the eveny places and was not on a large enough scale on he effective.

"Women are not going to go to doctors' surgeries and we adventisements unless there is comething wrong or they are pregnant. By then it is too lots."

0301 5400

#### BRIDES

1980 TUBERCULOSIS CASES--The Ministry of Health has reported that 3,581 new cases of tuberculosis were recorded in 1980. However, the figure could be smaller since half of the cases were clinically diagnosed, without ealiva tests being conducted. According to the Panamerican Health Organization, there are 10,000 persons suffering from this illness in Micaragua. [Managua Sistema Sandinista Television Network in Spanish 0200 CMT 9 Jan 81 PA]

IMPROVING HEDICAL CARE SYSTEM URGED

Labore THE PAKISTAN TIMES in English 21 Dec 80 p 4

[Article by Waseem Halik]

[Text]

Although over the past 30 years the infant mortality and crude death rates have declined significantly the country remains by and large critically short of proper medical care for a large mass of its population.

finadequacies of the medical core system to Pakasan are reflected in the low life expectancy which is 31 years as compared to 30 years in developed countries, the crude death rate at 15 per thousand as against 8 in New Zesiand, and infant mortality at 113 per thousand as against 8 in U.K., 10 in Japan and 11 in Switzen-land. The Physical Ouality of Life Indea which measures life expectancy, infant mortality and Dierracy is estimated to be 30 only for Pakistan as against 94 in the industrialized countries. It is estimated that about 30 per creat or the country's population in within two-mile radius of considers medical facilities.

## **Facilities**

The health facilities are not only madequate, but aim unfairly distributed, outside the reach of the common man and emgraphically in

accessible. It is entirested that only a small percentage of the population has easy access to modern health services because of lack of reads or affordable means of coromanications. In 1970 the population per decion was against 14,200 persons to rural areas. In case of boopital beds, the rural areas with 70 per cent of the population have only 19 per cent

Not coly is the availability of health-related services in rural dreas extremely inadequate but they are also of exubtful value because of untrylined and inadequate staff, beneficiant supervision, lack of equipment and mechines, etc. Moreover, beatth services in the country as a whole place emphasis on constite care instead of prevention and early greatment. Medical care facilities mainly consist of bospital beds, physicians and pursue, although beatth is also related to as individual's income, calories supply per capita as against requirements, access to safe and clear water and edulitieracy. At the time of indopendence, Pakistan had only 1014 dectors and over 14 thousand hospital beds. The situation has improved quite significantly as the emister

try has increased by M thousand and doctors by 13 thousand aloce 1947. In terms of population per physician, there were 11 thousand persons per hospital ted in 1960 which ratio improved to 3780 persons in 1978, as compared to 9800 persons in low income countries. Aliff in middle income countries and 630 persons in tubustrialised countries. Population per physician in Pakistan was estimated to be 2070 persons as assumed to be 2070 persons in India. 120 persons in U.K., 100 persons in Japan and 90 persons in Austria. Population persons in Austria as against an average of 220 persons in industrialised countries. Access to safe water is available to only 29 per cent of the country population as compared to an average of 60 per cent in middle income developing from 1750.

Expenditure on bealth in Pakistan is about 0.80 per cent of GNP as against an average of 2 per cent in tentinostre countries. Government outly per capita in Pakistan is estimated to be one dollar as against 230 dollars in industrialise, countries.

Development expenditure on

health in Patinian ban, however, gover up from Rs. 6 milition in 1970-71 at current prices to over Rs. 750 million in 1979-79. In case of per capita donderedapsent expenditure, at constant prices, it went up slightly from Rs. 2.33 in 1970-71

## Expenditure

Recently, the total annual expenditure on health in the country runs to around Ra. 150 crore or about Ra. 15 per capits at current priora. To maintain the expenditure per capits at the present level at recent at the priorate in expenditure thousand be about Ra. 60 crore as against as average second increase of Rs. Rs. 20 crore in the past few years.

The total number of physicians in the country is presently estimated at about 15 thousand. By the year 2000, the number of physicians would go up to around 50 thousand as against 2,3 lash, needed to achieve a ratio of 6,80 persons per physician in order to attain the present Western ratio of about 100 persons per bed, the number of bods should rise to 7,80 lash as against the present availability of around 50 thousand beds.

In order to provide health cover to maximum number of people at the earlies? It is necessary to evolve a low cost indigenous strategy

The future health plan should rely apart from blakings and blomosepaths on mid-level health workers rather than physicians and purposes it seems appropriate that middle level per sonate with one-year training

after controplation should be produced in provide large male opedical care to over to million rural propulation Medical institutions should employ almple, insupersive buildings and equipment.

Village health workers can be trained at low cost by simplifying procedures for the diagnosis and transment of common diseases and parrowing the range of treatment. It is also possible to concurre community participation to low-cost health system.

Rural health centres or urban clinics about the established to provide cardical care to those whose problems are beyond the capacity of community health workers. This level about the capacity of community health workers. This level about the capacity of cartion upto F.Sc level etc. At the final and third treet, there about the hospitals employing highly qualified physicians and specialists etc. Training for physicians and surves in Pakistan follows the intervantemal curricula. It seplects local common diseases and presumes availability of acaphiticated facilities and equipment. Freezelly, Pakistan is producing about 1200 doctors and 500 our sently. Pakistan is producing about 1200 doctors and 500 our sently. Pakistan is producing about 1200 doctors and 500 our sently. Pakistan is producing about 1200 doctors and 500 our sently. Pakistan is producing about 1200 doctors and 500 our sently. Pakistan is producing about 1200 doctors and 500 our sently per amount but future to vestment on health should concentrate not only on producing doctors but also on increasing output of middle level medical personnel and services capable of meeting the needs of rural areas where a majority of our people live.

#### BRIEFS

VIRUS-SPREADING MOSQUITOES ATTACK LAHORE LOCALITIES—Lahore, Jan 10—Presence has been detected in Lahore of a deadly virus-spreading mosquito, whose bite causes jaundice and yellow fever which could result in the death of the victim. The mosquito called 'adeas aegypta' has been found in the four Lahore localities, namely, the area around Sir Ganga Ram Hospital, Ribarkhanas of Bilal Gunj and Haulakha and Lahore railway station. A meeting was held here on Wednesday to devise ways and means to eradicate this menace in the city. Dr. Hazeer Alam Haru, Principal, College of Community Medicine, has been entrusted with the supervision of the anti-mosquito campaign. The 'adeas aegypta' is also known to have attacked birds and the virus produced therein has the capability to enter into human body to play hell with it. The presence of this deadly virus-carrying mosquito was also detected in 1947, when there was a large-scale migration of the population. The mosquito has the tendency to breed at all places where water accumulates instead of drains or gutters, [Text] [Karachi DAWN in English 11 Jan 81 p 5]

## HANY RECOVER FROM CHOLERA; HAP SHOWS AREA AFFECTED

Pifteen Still Hospitalized

Johannesburg THE STAR in English 6 Jan 81 p 6

(Text)

Almost 1 000 South Africans have had cholers but more than 900 are back at work. And only 15 patients remain in hospital.

The Deputy Director General of the Department of Health, Dr James Gilliand, told The Star's Preserta correspondent today that the last was been tenung.

Three-quarters of the reported cases were the "contact" type: they had been picked up through laboratory tests only, showed to symptoms and the people were not ill. "Most of them, in fact, do not require treatment," he

Fortpeix new cases had been reported since January 2, bringing the astional total to 501, of which 919 were in the Eastern Transvani lowveid.

He emphasised that the

"meaningless." a n d "to historical interest only it the light of the high pronortion of cases cured.

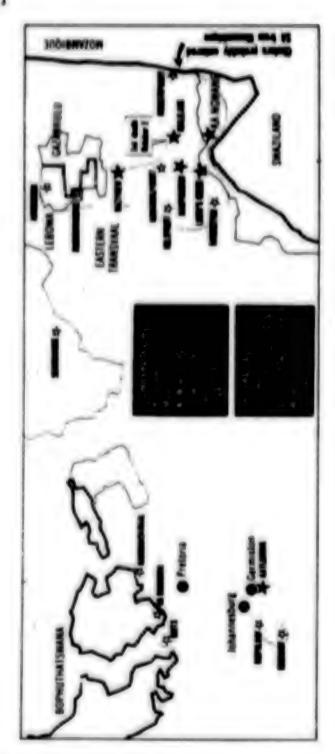
Dy Gilliand noted that personal hygiene was the most important factor in fashting cholors.

Was cholors endemic to the Eastern Transvall lowed? "It has not yet rearbed this stage. But the outbreak in the Louw's Crook-Matsulu area could be regarded as a temporary endemic," he said.

The World Health Organization had reported that Gabon and Sudar wore the new Africas countries on the 1975 cholers list. In Africa. reported came dropped from \$3.517 in 1978 to 18.688 in 1975.

## Johannesburg RAND DAILY MAIL in English 13 Dec 80 p 3

## [Text]



The control of the co

The bring to the or

A quitament for the Department of Blacks said three of the case confirmed preterday came from Gazzabala. The others were from infected error on the Crossoftle and Kanp rivers between Burberten

#### BRIEFS

TYPHOID SCARE IN DURBAN--Durban--Typhoid has broken out in Durban and a round-theclock search is being carried out by the city health department to try to pinpoint
the source of the disease. Doctors have confirmed that a prominent Durban North
businessum, admitted to hospital last week with a high fever, has typhoid.

Dr Colin MacKenzie, Durban's medical officer of health, said they were trying to
locate any contacts the man may have had during the incubation period. The search
had been hampered, he said, because the man had recently returned from a visit to
the Transkei and Ladysmith. The search has also been extended to all restaurants
and eating places he may have visited within the past few weeks. Typhoid is a much
more contagious disease than cholera. But Dr MacKenzie said there was no need for
panic. Twelve more cases of cholera have been reported, bringing the South African
total to 707. [Text] [Johannesburg THE STAR in English 18 Dec 80 p 1]

CHOLERA CASE IN OFS--A further 20 confirmed cases of cholera had been reported in South Africa up until noon yesterday, the Department of Health said in Pretoria. These cases had occurred mainly in the Eanguane area in the Eastern Transvaal, although one had been reported from Edenville near Kroonstad in the Free State.

[Text] [Johannesburg THE CITIZEN in English 13 Jan 81 p 3]

#### BRIEFS

CHOLFRA AREAS—The Ministry of Health announced on 14 January that Mannar will be declared a diseased area with effect from 16 January. This is being done in a bid to curb the outbreak of cholera. A total of 23 positive cases have been reported throughout the country this month. Meanwhile, Batticaloa became the newest area from where a positive case of cholera has been reported since the outbreak in Hovember. Health Ministry Secretary B. C. Perera said on 13 January that this type of cholera "El tor" which occurs in a mild form could be easily controlled if treatment was sought immediately [as] the symptoms appeared. [BK210325 Colombo SUR in English 14 Jan 81 p 1 BK]

C50: 5400

#### CHOLERA SHOT INSTRUCTIONS REPORTED

Mabane THE TIMES OF SWAZILAND in English 13 Jan 81 p 1

[Article by Pat Mxumlo]

[Text] Staff at the Public Health Centre in Mbabane has been given instructions not to inoculate anybody against cholera except those intending to leave the country.

A large crowd of people from around Mbabane and other outlying areas in the district were turned away at the health centre yesterday. They were first addressed by Dr. Ruth Tshabalala, the medical officer in charge of the public health centre.

Only those who could produce passports or travel documents as proof that they were leaving the country were inoculated.

One member of the public came to the Times yesterday to complain about the lack of notice about the decision. He said that scores of people who could ill afford transport costs had come from many kilometres away for inoculation, having been urged by Ministry pamphlets and radio announcements to do so, and had been turned away.

Inoculation at the Public Health Centre in Mahane, for those who can produce passports, are free. Inoculations at the Mahane Clinic, where there is no such restriction, cost E3.50.

Dr. Tshabalala later confirmed to the Times that she had turned away all those people who had come to be vaccinated against cholera except those intending to leave the country.

She told the Times that no case of cholers has as yet been identified in Mbabane and therefore advised that people in this area should not panic, but observe their hygiene.

Dr. Tshabalala appealed to the community of Mbabane to report all cases of diarrhoea and vomiting so that these can be tested by the Ministry of Health.

Once any case of cholera has been identified, the necessary precautions will be taken as they were at Mkoyoyo and Mvutshini areas, both about 5 kilometres from Mbabane, recently.

She said immediately the cases were identified in Nkoyoyo and Mvutshini the health personnel went to the areas and all appropriate actions were taken and such investigations as to the state of water consumed by the community made as well as whether or not they had proper toilet facilities.

She appealed to the public to observe the health precautions boiling water if it is not from a treated source; wash hands after visiting the toilet; kill or prevent flies from coming into contact with food and avoid eating uncooked foods.

Dr. Tshabalala warned that should the public fail to observe their hygiene and hope that the inoculation will protect them from the disease, they will be doomed.

Hundreds of people have been queueing for vaccination at the centre ever since the death from cholera of a woman from Mkoyoyo near Mbabane last month.

And since then people have been vaccinated, irrespective of whether they were leaving the country or not. Hany more are reported to have even come from Manzini since vaccination there has not as yet been opened to all except those going out of the country.

## REPORTAGE ON CHOLERA ALERT, CONTROL MEASURES, IMPACT ON COMMERCE

## Vendors Require Permits

# Mbabane THE TIMES OF SWAZILAND in English 22 Dec 80 p 1

## [Excerpt] ALL SWAZI CHIEFS in South Africa have been advised to ensure that they are vaccinated against cholers in time for their departure to this country for the lacwale Ceremony on

Food vention have also been advant that due to the cholors alteration only these with parameters will be allowed to sell food at the lactuck under the experience of health

Making this successor on Friday, the Minime for Home Affairs, Friese Galdeni appealed to the public and days readers who have you pro complete to the public and

The reporty of the dispution, he said, had been administrated by the reason entragency under of Purplement had been specifically called among other things to the party of the

Prime Cubbed expressed the large day with the cooperation of the public the largest accounty will pro-

Under normal conditions food ventury came from as for afteld in Laborator, and the Shindway and Phys. Posts districts with control food to add during such autional communics in the Europea, independence autionary, the Elegan Striking and the Unitings Band Dance.

Although Seculiard on all open least body in that yo for only one care of challen has been confirmed, the Mainty of Health and provinces in personal or taking so the confirmed in the confirmed on taking so the confirmed in the

During the recent energy of thing Performed was subset to print experiencery extension encounting to ESA,600 to the Ministry of Health, the built of which will perform the performance of the performance

## Reaction to First Fatality

# Mbabane THE TIMES OF SWAZILAND in English 29 Dec 80 pp 1, 8

[Text]	WOMAN from Nkoyoyo near	lith December, complaining of diarrhoes and vomitting, and died	She is the second confirmed care in the Kingdom. The first was reported in Pigg's Peak on 4th December, in a 15 year old schoolgirl, who responded to treatment.	spotesman said that there was no connection between the two cases.  The spokesman,
--------	----------------------------	--	--	--

"Two types of carriers exist, one who gets the disease but does not suffer from it and the other is somebody who recently recovered from illness. Carriers are responsible for the spread of the disease amongst the

\*\* fo important that people should use larrines and wash their hands thereafter," the Monstry spokesman said. bise

The Nkovoyo woman carrier of cholers was admitted to Mhabane Hospital and given the necessary treatment to climate her carrier state The surrounding vaccinated.

corriers it is CWITTER festivals every precaution be taken to practise the

- Boil water and milk.
- Use a latrine/toiler Keep hands clean Cook food properly

- Cover mi flies
- Wash fruits e

7 Help kill all the flies pert by Minam

Boswana also banned a concert scheduled for giving the

Fruit, Vegetable Imports Stopped

Mbabane THE TIMES OF SWAZILAND in English 30 Dec 80 p 1

[Text] AS THE out

## Mbabane THE TIMES OF SWAZILAND in English 2 Jan 81 p 5

[Text] CUSTOMERS are getting madder and madder ... but these vegetable prices are getting higher and higher - if you can find them at all. James Diamini has been checking the situation in a number of markets.

THE OUTBREAK of cholera in Swaziland is not only a reality, but it is now beginning to sting and is being felt sharply by all income groups.

Major orban and population centres in the country are experiencing acute thortages of basic vegetables, each by people in all income cutagories - lower, middle and higher. Most effected are ensure and tomatues. Also affected greatly are potatues, spinach, beans and fruits such

The shortage is so scute that in some areas, it is possible to stay without outcome and tornators for up to two weeks. The shortage started being felt as some as the ban on vegetables from South Africa was put into effect but it became more sharply felt during the past

These abortages have resulted in massive price bikes in the prices of basis vegetables. The prices are soow so high that lower and middle income people can forget about tomations, owners and potatoes. These food stuffs are now a luxury it is now more expensive to buy a pocket of potatoes, onions of tomatoes than to buy a justy piece of russip meas.

Before the outhread of cholera which resulted in the shortages, three, four or its some cases even five onions in a small packet used to cost 20 or 30 cents depending on where you were buying them. Now two onions in the market place in Mhahane and Msunduza, the only two places where you can buy them legally in the Mhahane urban area, now costs E1.

This is if you can find them at all, theth places had no omions at all earlier this week, and the market women said if was possible there may be no common antil next week. However, they were not sare that they would get supplies at all markets.

When The Times checked the market place in Minaham on Monaham all the same of the same of

"Ouly fil Str., there is no thing I can do about it." He muscled deporate - or if he wanted the customer to professional his player.

"Look, I have only three packets, left and when they are finished with these (he said pointing at a small buridle of petatoes) I will have sething clue to sell and I don't know when that will happen," he said.

He then picked up a small box and said: "I paid £4 60 for this box."

The bus tooked as if it could produce six pockets for him to well. The customer should his head and left without buying anything

if they would be unfer for human communication of they stayed for more than one day. The man had the few pockets of nemators, a small brodle of potaton and two pockets of groun beans. He insided as if he was really in trouble. The market women in Miliaham more charm in Miliaham more charm in Miliaham more charm.

No a poster of potators which mad to cost 50 cents before At least this is only a 100 percent price rise as compared to the more than 400 percent price rise in regard

The stalls were almost empty in general except for mangues which are in season from the Pigg's Peak sub district. There were also a few packets of over ripe banamas and some beans. Most of the tren and women who run the market place are almost out of business and many looked as if they had nothing to do and some women were knitting jerseys and hats.

There were so apples

"I sold the last packet of apples I had resterday and I charged El for three," one woman staffielder In one fruit shop which is usually packed to capacity there were a few bundles of apinach which cost 35 cents a packet. A packet used to cost 20 cents before. There were a few of potatoes, three avocado pears. The shop keeper said he has been getting rafe supplies from the Malkerns area since the ban. He said it was possible to make an order and get nothing for up to two weeks.

There are 14 stalls held by 14 different people at the Matsapa fruit and vegetable market. They dater for a broad range of people in this market, ranging from people working in the industrial area, teachers at the Swazi National High School and surrounding townships including eMbhuleni.

There was said a few problems of means. The few problems are such problems, three second and few parkets. The second had few parkets from parkets and the second parkets and the second parkets are second park

Flow or the grade had consit busides of presences back packet with toppunct. St 80 cents.

con 25 conto before. The other enafts every corteally coupey except for one which artis methods one for enter-

Charge day of the control of the con

At Makingery was bet a consider a consider and a consider a considera a con

bigationary market in one of the business markets in the country. There were a few beautiful and large burnibes of pincappins, foreign in the beggest burning new or blakkings with and committee or and the burning of the burning o

At Macrollum market there were to describe the community of parameters which cour Et a packer. Some easily have been closed and the sources don't

Lump of the crown conduct are disappearing from the crown the crown of these is conduct the conduct for the conduct the conduct the conduct the conduct when the self-through the conduct when the conduct of the conduc

Magazubide more from and organization were prevent of the hardeness from court or the formation of the forma

## Hore Cases Reported, Supplies Offered

## Mabane THE TIMES OF SMAZILAND in English 5 Jan 81 pp 1, 2

(Taxe)

# Limbabwe Offers Veg Supplies

THE MANAGER of a leading supermarket in Mbabane has said that he has been promised supplies of fresh vegetables from Zimbabwe by vegetable dealers from that country.

C90: 4420

### BRIEFE

CHOLERA CONTRINED IN LUSHOTO--Cholera, which has so far claimed 13 lives in Lushoto District since December 7, has now been contained, a health official said in Lushoto yesterday. The official told the District Anti-Cholera Committee that out of 61 patients reported in the district during this period, only two were still receiving treatment at Ngulvi and Punts villages in Lushoto and Bumbuli divisions. [Text] [Dar es Salaam DAILY NEWS in English 5 Jan 81 p 3]

# BOTSWANA EXPORTS VACCINE FOR POOT-AND-HOUTH TO NEIGHBORS

Gaborone DAILY NEWS in English 22 Dec 80 p 1

[Article by Johannes Pilane]

(Text)

quantities of various for foot and mouth discuss to some magnitiouring countries. And there is every optimize that

The Acting Manager of the bracks Manager, Lyon, a franciscopy norse based in the Company norse based in the Company norse per continuous tool the Company to continuous tool to company has to provide the company has to continuous tool tool to company has to continuous tool tool to company.

The common which was a

The company provides in-

The company is currently constructing earlier building in section of the supervision for the buildings of th

of the drug from Between of the

the Companyation and developments makes beare beare done to cording to plan.

## CYSTICERCOSIS IN CATTLE CALLED ECONOMIC PROBLEM IN CSSR

Prague NAS CHOV in Crech No 9, Sep 80 pp 357-358

[Article by Jan Prokopic, PhD, Doctor of Sciences, and Jiri Sterba, M.D., Candidate of Sciences, Institute of Parasitology, Czechoslovak Academy of Sciences, Prague: "Cysticercosis of Cattle as an Economic Problem in Large Cattle-Raising Operations"]

[Text] In earlier cattle raising technologies, particularly in grazing, many parasites caused extremely great losses. When the change was made to large-output methods of cattle raising, the number of types of parasites decreased, but some of them are still an extremely important economic problem. These include cysticercosis of cattle, produced by Cysticercus bovis, the larval state of the beef tapeworm (Taenia saginata), which in its adult phase is parasitic on humans. Mitherto, cysticercosis of cattle has been diagnosed in Czechoslovakia only in post-mortem conditions, i.e., by dissection of susceptible muscle groups and organs of slaughtered cattle. In essence this is only a preventive measure aimed at limiting or decreasing infestation in humans. According to statistics from the Czech Socialist Republic, however, the incidences of teniasis in humans and of cysticercosis in cattle are increasing constantly. In 1976, 1,170 cases of infestation by Taenia saginata were identified in humans. Cysticercosis of cattle is about 200 times as prevalent on a percentage basis as teniasis in humans. This situation is fostered by several specific factors stemming from the developmental cycle of Taenia saginata: the increasing custom of eating raw or underdone meat products; unprecedented levels of travel, and the fact that a large percentage of persons infested with tapeworm do not consult a physician for a long period, so that they become long-term disseminators of tapeworn eggs; the fact that one carrier may produce infestation of most of the cattle in stalls on a given farm; the fact that in this country, during the growing season most of the urban population spends weekends and holidays in the country, which leads to pollution of pasturelands, meadows and feed crops on arable land; and the fact that although we have excellent veterinary inspection of meat at the slaughterhouses, it is impossible to eliminate completely infestation of humans, so that when people in this country are infested it is always from slaughter meat which has passed veterinary inspection.

Let us consider the first factor, the consumption of raw and undercooked meat products. To date, methods of diagnosing cysticercosis have been unable to exclude

mild infestations, which could be completely eliminated by heat treatment of the meat. Here our findings collide with people's traditions and fashions.

Another, very important, factor in the spread of cysticercosis in cattle is travel and tourism. People from this country can become infested with tapeworm anywhere abroad where cysticercosis of cattle has a generally higher incidence than in this country. As an example we may mention East Germany, where owing to the high incidence of cysticercosis in cattle, there is 30 times as much teniasis as in this country. On the other hand, the multitudes of tourists who spend a short or long period in our country, particularly in summer, pollute pasturelands, meadows and feed crops in the vicinity of recreation areas, camps, heavily-used highways and the like.

A third important factor is the fact that owing to thorough veterinary inspection of meat, humans are generally infested by only a single tapeworm, which sometimes causes them no discomfort at all. Accordingly most consult a doctor only after a long period (and sometimes not at all), so that they are persistent sources of infestation of cattle. Starting 80 to 90 days after infestation, the patient constantly discharges 6 to 8 tapeworm sections per day, and since these contain 145,000 to 175,000 eggs each, this amounts to 1.4 million eggs daily. As a rule, tapeworm carriers are treated in the second to fifth year, and frequently only after 6 to 10 years. The life span of the tapeworm is 10 years in 15 to 20 percent of patients, and cases are known in which a patient has been infested with the beef tapeworm for as long as 35 years.

The fourth important factor in the spread of cysticercosis is the possibility of infestation of cattle from a single carrier, which is quite frequent in this country. We had the chance to solve such a case in one farm of the enterprise Velkovykruma Trebon [Trebon Large-Scale Feeding Station], where in 1972 there were 3 cases of cysticercosis in slaughtered bulls, and 2 cases in 1973. In 1974, 16 bulls were infested, representing a loss of 85,000 korunas. In 1975, 141 bulls were infested (a loss of Kcs 501,000), and in 1976, 194 bulls were infested (a loss of Kcs 973,000). In the fall of 1976, a composite rationalization brigade was organized from representatives of the Institute of Parasitology, Czechoslovak Academy of Sciences, and the okres veterinary organizations, and in cooperation with the kraj and okres health stations it began a helminthologic investigation and educational work among enterprise employees. Some 907 employees involved in anisal and plant production were tested three times each; three carriers of Taenia saginata were found. Some 96 samples of products (hay, feed straw, silage) were tested and found to contain eggs of Taenia saginata. The patients were dewormed. In 1977, there was some decrease in the incidence of cysticercosis (185 bulls, a loss of Kcs 901,000). In the first quarter of 1978, there were only the aftereffects of infestation from the previous year (16 bulls, a loss of Rcs 80,000). In the second half of the year, no cysticercosis-infested animals were found.

The fifth factor, leading to mild infestations of cattle by cysticercosis, results from pollution of fodder by domestic and foreign tourists. In rainy periods, the tapeworm eggs are washed over large areas, resulting in their dispersal, so that they do not produce massive infestations. The mild infestations escape veterinary inspection and are the only source for beef tapeworm infestation of humans in

this country. Such mild cases of cysticercosis have a 98 percent incidence in this country. In Jindrichuv Bradec Okres, mild cysticercosis infestation was found in 81 farms.

The sixth factor is the fact that in spite of the best inspection of meat it is impossible to prevent tapeworm infestation of humans as a result of eating raw or undercooked meat products. This does not produce massive infestations, and the patients do not suffer great discomfort, but they are long-term carriers of Taenia saginata and sources of infestation of cattle.

The eggs of Taenia saginata (Fig. 1) can survive 16 days in city sewage, 33 days in rivers and up to 160 days in pastures.



Fig. 1. Egg cluster of the beef tapeworm (Taenia saginata).

Accordingly, the veterinary service must direct its efforts in particular at preventing infestation of cattle from fodder. Documentation on movement of agricultural enterprises' animals (transport and pasturing, transport of fodder and the like) must be reviewed from a preventive point of view, and the techniques of fertilization of meadows and pasturelands considered. In particular, fertilizing with sewage must be forbidden when the tanks are also connected to the enterprise employees' toilets. Gradients of water from recreation areas or areas with large accumulations of people must be checked, taking into account roadways with heavy concentration of rest rooms.



Fig. 2. Detail of cysticerci in heart muscle of a bull. Archive photo.

The water cycle of pasturelands, contamination of drinking water sources and the like must be checked. In large-scale stall-type livestock raising operations, the sources of green fodder and drinking water must be checked. When there are repeated occurrences of cysticercosis, a teniasis investigation of the animal keepers, enterprise employees, and possibly the rest of the populace in the vicinity of the enterprise, by the okres health station should be requested.

#### STATUS OF CAMPAIGN AGAINST ZOONOSES EXAMINED

Bratislava ROLNICKE NOVINY in Slovak 24 Nov 80 p 3

[Article by Eng Lubomir Olach: "Due to Determination-The Fight Against Zoonoses Is Successful"]

[Text] An international congress which took place in Vysoke Tatry recently dealt with problems of zoonoses, which are diseases communicable from animals to humans. Because in their overwhelming majority the zoonoses occurring in our country cause losses in animal production, the workers of the State Veterinarian Services at the Hinistry of Agriculture and Food of the SSR are engaged in a systematic battle against them. We asked Milos Halasa, ScC, doctor of veterinary medicine, and director of the Central State Veterinary Institute in Bratislava, about the results of their struggle.

"Over several decades the workers of health and veterinary services have been trying to gather all available information concerning individual types of zoonoses and their causes. Our aim is to reduce as much as possible the danger they pose to people and animals and thus, to eliminate simultaneously the economic consequences which every type of zoonoses necessarily produces. Despite extensive studies we still cannot limit sufficiently the number and spread of many zoonoses. Of the approximately 150 zoonoses known at present, at least 100 merit our constant attention. Because we lack adequate personnel, we selected 20 to 25 types of zoonoses which interest us in particular. In recent years in our fight against zoonoses in the CSSR we not only achieved significant success in preventing them, but we were able to eliminate many of them.

"Indeed, infectious anemia of the solidungulates, mange in horned cattle, brucellosis, etc., are no longer a cause of considerable anxiety to our agriculturists. It should be underlined, however, that other diseases included among zoonoses still pose serious problems to livestock breeders. It is therefore right for all interested parties to pay special attention, not only in terms of their diagnostics but also of their prevention.

"Rabies may have no spread extensively in recent years, yet the situation has not been quite satisfactory. As a matter of fact, every year more than 120 cases are being confirmed by laboratory tests. About two-thirds of the cases affect wild animals among whom the foxes are the most frequent carriers. Last year their share in cases diagnosed as rabies was as much as 58.2 percent. Other species of wild animals are not particularly dangerous in terms of the spread of rabies.

"Although it is mandatory to vaccinate dogs over 3 months old against rables, veterinarians identified this disease last year in 22 cases. For that reason mandatory vaccination against rables must be controlled much more rigorously. Most of the rabid dogs in fact did not have any immunization record. Domestic cats represent a special chapter in terms of the biological cycle of rables virus, as evident from the 21 cases of that disease reported in cats. One must realize that, next to dogs, cats are the greatest potential transmitters of rables to man.

"Q-fever is significant from the points of view of health and economy. While its incidence may not be particularly high, what is more important is that it occurs all over Slovakia. Aborted pregnancy, especially in horned cattle and sheep, causes sizeable losses to farmers.

Salmonelosis is an infectious disease caused by various species of Salmonellaparatyphoid being a typical type of such food poisoning. In economic, veterinary as well as health terms it is one of the most dangerous zoonoses. Although the fight against it has been waged in our country and in the world for a long time, the results of this fight are very modest.

Last year 33 foci of infection were identified in 33 communities in the SSR. In the course of the year, however, there were 259 cases of salmonelosis, and 387,153 head of livestock were stricken. Experts anticipate similar data for this year again, which gives rise to certain anxiety.

"It is noteworthy that no more than 7 strains of Salmonella were isolated in 2,604 specimens of fodder of domestic and foreign production tested in laboratories. Experts tested 107,629 specimens in food-processing plants, but identified Salmonella in fewer than 200 instances.

Tuberculosis has demonstrated a slightly upward trend in horned cattle and especially in swine in recent years. It is generally known that it is difficult to elminate TB in cattle-raising farms, but it is even more troublesome to keep the livestock TB-free. This is confirmed day in and day out. Despite rigorous preventive measures, TB occurs systematically not only in horned cattle, but also in swine, sheep and poultry. It is appropriate that our veterinary service, proceeding from these facts, has imposed stricter comprehensive diagnostic methods and applied preventive measures in all livestock-raising farms. Extra caution never burts when dealing with TB."

M. Halasa, doctor of veterinary medicine, explains: "The diseases I mentioned are perhaps the most familiar to our farmers in general, but that does not mean that we do not pay proper attention to tularemia, trichophytosis, toxoplasmosis or other zoonoses. Rather, the opposite is true. Experts in veterinary research and practice are studying those problems. The current situation and the results of the fight against some zoonoses are satisfactory, even excellent. Nevertheless, we must expand and intensify our activities, whether in terms of diagnostic tests, prevention, eradication, etc. of the overwhelming majority of zoonoses. I believe that our joint effort will succeed."

9004

# HEAVY SHEEPHEAT LOSSES FROM SARCOCYSTIS REPORTED

# Auckland THE NEW ZEALAND HERALD in English 6 Jan 81 p 1

Text7

Press Asm Wellington
Cuts on farms cust New
Zonland more than \$2 million
last year, according to the

Cats spread the dis-

sarcocystis, which contains stes sheep carcasses.

Recent work at Massey University shows surcocystis is second in importance only to pleariny in the that of dicance which downgrade sheapmont, according to the latest issue of the ministry magazine Quarter.

The total cost of the disease, which leaves cysts in the ment of the above, was probably about \$2.5 million in 1888, the magazine reports.

#### EIB LOAN FOR VACCINE PLANT REPORTED

## Gaborone DAILY NEWS in English 31 Dec 80 p 1

[Text]

The European investment Bank (EIB), the European Community's bank for long-term finance, has lent the equivalent of 4 million European Units of Account (e.u.e. (about P3,7 million) towards the construction of a factory in Between which will produce vectine to protect cattle against feet-and-mouth disease, according to a release from the Betweens Embessy in Brussels.

The funds have been made available under the terms of the first Lome Convention as follows:

A loan of 2.5 million e.u.a. (about P2.3 million) granted from the EIB's own resources to the State-owned Botswane Veccine Institute Ltd (BVI) - the term is 10 years and the interest rate after deduction of an interest subsidy drawn from the Community's European Development Fund

There is also a conditional loan of 1.5 million e.u.a. (about P1. 4 million) interest rate at 2%) granted to the State to help cover an increase in BVI's capital, this loan is drawn from risk capital resources set aside under the Lome Convention and managed by the EIB on the Community's behalf.

The factory, which will be located near Gaborone. Botswana's Capital, should have an output capacity of approx 21 million monovalent doses per annum.

The decision to build the plant was taken following success in combating the disease by setting up a pilot production unit

three years ago

The vaccine will be used mainly in Botswana (the country's economy is heavily dependent upon beef exports) but production will also be evaluate for use in neighbouring countries, including Zimbabwe, where the same virus is found. The project, which is of regional importance, is given a high priority by the Southern African Development Coordination Conference

The loans will go towards investment cost put at the equivalent of 9.0 million e.u.a. Technical essistance for the project will be given by the Institute Merieux

Mr Disser HAR TWICH, Director at the Department for Finance of the EEC and Mr. Dough a life Director at Legal signed on behalf of the Botswana Government.

#### BRIEFS

COFFEE RUST--San Salvador, 6 Jan (ACAN-EFE)--Francisco Fisnales, director of the Salvadoran Institute for Coffee Research, told ACAN-EFE today that over 10,000 hectares of coffee trees--approximately 7 percent of the Salvadoran production--have been damaged by coffee rust. In this country, 210,000 manzanas (147,748 hectares) are used for coffee production. Coffee is the main source of foreign exchange in El Salvador. [Excerpt] [PAO82037 Panama City ACAN in Spanish 2107 GMT 6 Jan 81]

#### BRIEFS

COFFEE RUST--Enrique Roesche, president of the National Coffee Association, has reported that an outbreak of coffee rust disease has been discovered in Los Amates, Izabal. This is the second outbreak discovered in the country. The first was discovered 3 weeks ago in Chiquimulilla, Santa Rosa. Roesche reported that measures to control and eradicate this second outbreak have already begun. [PAO51253 Guatemala City PRENSA LIBRE in Spanish 23 Dec 80 p 2 PA]

# INSECT PEST INTERCEPTIONS AT PORTS, AIRPORTS INCREASING

# Auckland THE NEW ZEALAND HERALD in English 10 Jan 81 p 5

ffext 7

Press Assn Wellington
Many immeds and other
pents are being intercepted

Figures just remained by the Mantoner of Agriculture and Philorian three that itterespitates of immetamitin and other peets have more than tripled in recen-

interreption. By 1878, the man recent year for which figures have been released. the number had jumped to make the same than the

The report says The increase in these figures in probably due to the increasing number of alternal arriving, with a consequent in Crease in the amount of in-

Mr J. B. Reall, of the minintry's plant health and diag meets: station at Levin said "While many of the intercomic significance many others are important posts both to the wider field of agriculture, and for the gen-

The report lists a number of important pests found for the first time. They include

- The Booth African fruit fly, interropated in grapefruit from Peru, it is a serious frill used in Smoth America.
- The grape leaftsopper, a grape peel in the United States, was found on grapes from California.
- Two species of warvij known to be legame peak in Europe and the United States had been found on pomegranates and carractions.
- The oriental fruit fly was found on a consugament of
- \* The bestle truppdomi variable, so Asian stored

# GOVERNMENT CAMPAIGN WARNS PUBLIC OF FRUIT FLY OUTBREAK RISK

# Christchurch THE PRESS in English 22 Dec 80 p 5

[Text7

PA Weilingtoh
A small fly which could
apread havor in horticulture will be the target
of a big pulicity campaign.

of the fruit fly managed to enter New Zealand and infest crops, it would be disastrous for the country's \$150 million worth of horticultural experts.

The fly attacks all the common kinds of fruit, including such major export exrners as apples, pears, and kiwifruit. An infestation would do to horticulture what foot and mouth diseast would de to the meat industry.

The Ministry of Agriculture plans a publicity "blist"; to aiert the public te the risk of an outbreak. Fruit fly maggots are frequently intercepted in fruit entering New Zealand, and the Ministry believes it is only a matter of time before some slip through the net and an outbreak occurs.

The Ministry wants the public to be on the lookout for the fly, and has prepared contingency plans and anti-fly eradication teams.

The tell-tale sign is shockingly simple, according to the Ministry's chief envisory officer for plant health, Mr J. Currier mag gots, very similar to ordinary fly maggots, in the flesh of the frost.

The maggets do not usually appear until the fruit is ripening. They are especially common is wondfall fruit.

Mr Currie is anxious that the public distinguish between the common cater-pillar found in apples and other fruit, and the fruit fly maggot. The Ministry does not want to be flooded with fruit containing caterpillars.

But if you bite into an apple and find a magget inside it, then we would be obliged to hear about it because we would be most

The public is unlikely to notice the fly itself, which is only about half the size of the ordinary fly, and moves at great speed through the air.

If the fruit fry did enter New Zealand, an expensive eradication campaign would be needed. the United States has apent nearly \$35 million eradicating the By after outbreaks.

New Zealand's trading partners in horticulture would put up quaranties barriers against its produce until they were saidfied it the been eradicated or that fruit imports were free of it.

An outbreak at the height of the season would cause chasa, as it would take 12 weeks at least to carry out control measures which would satisfy trading partners enough to have barriers lifted.

The Ministry has trained eradication and control teams in the main f r u i t-growing danger zones, and is to put a string of fruit fly traps in domestic gardens across Auckland. If any flies are caught in the traps, a major eradication drive will take place.

The Ministry will also issuich a big publicity campaign in the New Year as the main fruit crops ripes. It will use television, newspapers, and school edisention programmes to get the message across.

Horticultural exports are predicted to rise as much as \$500 million by the end of the decade, and the Ministry wants to make sure there is no fly in the ointment.

CS0: 5400

## YELLOW-STRIPED RUST SPREADING AMONG WHEAT CROPS

Found in Gore Area

Christchurch THE PLESS in English 24 Dec 80 p 5

fext7

Yellow rust, a cereal crop the trouble is known only in disease known to cut wheat the Gore district, although it tields up to 50 per cent, is is expected to be found in beginning to thrive in the other areas in due course. Otama Valley-Willowbank Most of the crops so far area near Gore.

The first signs of the disease became apparent some rust is spreading quickly tweeks ago and it ha now and crops sown but the spread to six farms, affecting 90hs of wheat.

The presence of the disease in New Zealand had have now been advised to been expected for the last inspect their crops at least year after it devastated Austrance in week.

## Wind Carrying Spores

Auckland THE NEW ZEALAND HERALD in English 8 Jan 81 p 4

Text7

Wheat yields in west Otage and eastern Southland could be reduced by up to 30 per cent if affected crops are no sprayed for yellow-striped

The fungue was discovered by the Ministry of Agriculture and Flateries in Gore about a month ago.

But efforts to inclair the

was detected have been "virually impossible," according to a farm advisor, Mr M. J. O'Brien.

The wind has carried the spores of the living fungus to infect other properties.

Mr O'Brien said some types of wheat were more resistant to the fungue than others but if crops were not sprayed, yields could be cut in half.

CSO: 5400

END

# END OF FICHE DATE FILMED

Feb. 10 1981

